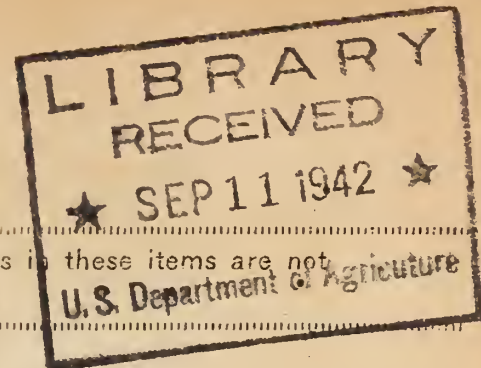


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

The Daily Digest



Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., September 1, 1942

"SCRAP RALLIES" IN ORDER. (Victory, August 25) You may be tired of hearing about salvage, and yet we cannot close our ears to the need for salvage; we cannot stop hunting scrap without risking defeat. WPA workers, beating the back roads of the farm country and digging old rails from city streets, have turned up 100,000 tons of scrap metal. Scrap rubber—454,155 tons of it—is moving to reclaiming plants at the rate of 4,000 tons a day. Washington, D.C., has set a pattern for "scrap rallies" to be held throughout the country. WPB's Conservation Division announces plans for a "Junior Salvage Corps" of school children to conduct a Nation-wide scrap canvass in October. And the American Legion is discussing with local governments a proposal that howitzers of 1918 be scrapped to make the guns of 1943.

HELP LOCAL LABOR PROBLEM. (Better Farm Equipment and Methods, July-August) Future Farmer members at Colusa, Calif., have taken the lead in recruiting others in the high school for summer and fall farm labor. They have bought a new tractor, a power-lift two-way plow, a six-foot power take-off mower and a two-section spike-tooth harrow. These implements have been used in custom work, preparing ground for 27 gardens, and working the chapter cooperative land. In working home projects, members pay operation costs and a small maintenance charge. The implements have also been of a big help in teaching members to operate and care for the machinery.

FREEZING VEGETABLE SOYBEANS. (The Locker Operator, August) At the Wisconsin College of Agriculture, according to O. B. Combs, vegetable specialist, soybeans have been frozen for more than two years, and it has been found that they are admirably adapted to this method of preservation. There quality, as compared with fresh soybeans, is approximately the same as the comparison between frozen and fresh lima beans, with which most of us are now familiar. The soybeans have been frozen in 1 and 1½ pound cartons thus far, and experience has shown that unless there are facilities for tray freezing, the freezing of soybeans should be confined to not more than two pounds or so in order that rapid freezing throughout the package is assured.

It was found that a three-minute blanching period is sufficient, and a freezing temperature similar to that normally recommended for lima and snap beans is low enough. The freezing temperature, as is well known, will vary somewhat with the conditions in the freezing plant. If facilities for air circulation are available, says Professor Combs, adequate freezing can be obtained at around zero or a little below. Without air circulation, he claims, it is probable that the temperature should be down below -15 degrees F. for best results. In all cases, they have used cartons that were lined with moisture-proof, vapor-proof, cellophane bags.

September 1, 1942

Of the varieties of edible soybeans which are now available from seed companies, Combs suggests that the Bansei variety be used for freezing, although Giant Green has been found to give fairly satisfactory results. The latter variety, however, is less attractive because even though harvested green, the dark helium characteristic of this variety when mature is evident in the frozen product. If seeds of such varieties as Etum, Kanum and Sousei, which at present are not available from seedsmen in some sections, are to be had from growers direct, it will be found that these varieties are very suitable for freezing.

NUTRITIVE VALUE OF MILK. (Southern Dairy Products Journal, August) Research in the Bureau of Dairy Industry recently disclosed some new information about the nutritive value of milk, which should increase the use of milk, particularly the skim-milk portion, as human food. The bureau's nutrition workers know there is something in milk--in the skim-milk part--that is essential to growth. But they have not as yet identified it. They made up rations containing all the nutrients they know of and they fed these rations to laboratory animals and pigs, but growth was by no means normal. They also made up a ration containing all the nutrients that have so far been identified in milk, but growth was still not up to normal. But when they added the skim-milk itself, the results convinced them that there are still other nutrient factors in milk that have not yet been identified.

Also of interest is the program recently started to make butter a uniform and adequate source of vitamin A. The Committee on Food and Nutrition of the National Research Council early in December recommended that the Department of Agriculture make a survey of the market butter, by regions, and by seasons, to determine whether butter in the usual trade channels could be depended on to furnish a uniform supply of vitamin A, and whether the amount in the 18 pounds of butter consumed by the average person was sufficient for his needs. Correct feeding programs could then be encouraged in areas, and during seasons, that are responsible for butter low in vitamin A. The bureau is now at work on that survey in cooperation with the state experiment stations in a number of butter-producing states.

August

PRODUCTION OF A BLAND SIRUP FROM APPLES. (Article by this title in The Fruit Products Journal and American Vinegar Industry,) Editors' Note: This paper should be of special interest to the apple products industry. A product which possesses considerable commercial promise has been developed at the Eastern Regional Research Laboratory of the Department of Agriculture, by M. A. Bradshaw and H. H. Mottern. The investigators have produced a sirup somewhat similar to commercial invert sirup, having no apple flavor whatever. This product should have many uses as a substitute sweetener, in these days of sugar shortages.

The principal drawback to the large scale production of this new apple sirup lies in the necessity of using a vacuum evaporator in its manufacture. If vacuum evaporators cannot now be bought, the solution of the problem appears to be in the use of equipment now employed for other products, such as milk, fruit juices, and tomatoes.. Since apple juice extraction is a seasonal operation, vacuum evaporators not in use in other plants during the season might be loaned to companies desiring to make this new sirup.

September 1, 1942

LIVESTOCK INDUSTRY IN HAWAII. (Western Livestock Journal, August)

The territory of Hawaii now has approximately 130,000 beef cattle. Most of these are Herefords, but there are also several fine Aberdeen-Angus herds. Approximately 72 percent of the beef cattle are on the Big Island (Hawāii); Maui, Molokai, and Lanai have about 19 percent; Kauai and Nihau, 4 percent and only about 5 percent are found on Oahu. The areas devoted to beef ranches are slightly in excess of 1,000,000 acres out of the total four million acres found in the Territory. These areas are above the sugar and pineapple plantations and below the forest reserves for the most part and many of them are inferior lands covered with lava flows, but included in the ranching areas are some excellent pastures with a high carrying capacity.

Local production of beef totals around 15 million pounds of dressed beef per year; imports amount to approximately 10 million pounds. In short, we produce about 60 percent of our beef locally and import about 40 percent. Per capita beef consumption in the Islands is about 60 pounds annually, which figure is close to that obtaining on the mainland. While local pork and milk prices tend to be higher in Hawaii than on the mainland, with resultant lower consumption, this is not true of beef and our per capita consumption is not materially different. Local production of beef has not increased materially in the past decade but imports have about doubled to keep pace with the demands of an increasing population. It seems unlikely that the pasture areas in Hawaii will be increased and the area devoted to ranching is probably smaller today than it was 25 years ago. Many acres that were used as grazing lands at that time are now planted in pineapples. That beef production has been maintained is due to a greater carrying capacity resulting from earlier maturing cattle, better ranch management, and better forage grasses.

NEW ALL-FIBER PLASTIC CONTAINER. (N.Y. Herald Tribune, Sept. 1)

Development of an all-fiber plastic-lined container which is impervious to oil is announced by Macmillan Petroleum Corp., Los Angeles. The tinless container is produced by direct processing of such surplus crops as corn, other grains, flaxseed, tallow, animal tissues, bone and clay. The basic fiber is made from straw and waste paper. The process will be made available immediately to the petroleum industry. While first use of these containers will be to package oil, it is possible to foresee their eventual use for such other products as beer and soup. Raymond S. Macmillan, president of company, said switchover to the new container would save 10,000,000 pounds of metal a year.

U.S.P.H.S. REPORTS ON COMMUNICABLE DISEASES. (Weekly Science Page, Science Service) The Public Health Service has doubled the number of communicable diseases on which it keeps tab so as to have an accurate picture of the nation's health each week. Weekly telegraphic reports from state health officers now include the number of cases of anthrax, amebic dysentery, bacillary dysentery, other unspecified dysenteries, infectious encephalitis (so-called sleeping sickness), leprosy, Rocky Mountain spotted fever, tularemia and endemic typhus fever. These nine have been added during the current year to the reports which already included: diphtheria, influenza, measles, meningococcus meningitis, infantile paralysis, scarlet fever, smallpox, typhoid fever and whooping cough.

September 1, 1942

DRIED VS. SHELL EGGS. (Editorial in American Egg & Poultry Review, August) Viewing the tremendous increases in the country's pack of dried eggs for Lend-Lease and other war needs, leaders in the egg field are already speculating as to what influence this product will have upon present established shell egg markets and prices after the war. Unquestionably for some time after hostilities have ended there will be a substantial demand for dried eggs to bolster the diets of millions of half-starved or undernourished peoples in foreign lands. As time goes on, however, foreign farm flocks will eventually be replenished, and those markets will be supplied with eggs of their own production.

Egg driers in this country who have made substantial investments in plants and equipment and have developed trained organizations naturally will make strenuous efforts to expand the home consumer acceptance of dried eggs for use in the family kitchen. This would result in perpetuation of the present keen intra-industry competition between the driers and the shell egg elements. Wider usage of the dried product would affect adversely the sale and consumption of eggs in the shell.

Fortunately, however, dried eggs do not lend themselves to the wide variety of uses possible for shell eggs. For boiling, poaching and frying with the "sunny side up," shell eggs occupy a position that the keenest dried egg competition could not assail. In the preparation of scrambled eggs, omelets, custards and other dishes where eggs are required, the dried egg product may find a place of economic importance. There should be no cause for alarm in future dried egg marketing developments.

TEXAS VICTORY COUNCILS. (Extension Service Review, August) Victory councils are organized in 247 Texas counties with 10,237 men and women serving as community leaders in the human chain system of communications. In 1 east Texas county visited by floods, steps were taken to avoid epidemics of typhoid, dysentery, and other diseases, and rural families were notified through the chain of necessary precautions. Public-health centers opened to give people serum shots and advice on sanitation problems. Another county which lost 60,000 acres of oats and 40,000 acres of wheat to green bugs used its chain to obtain pooled orders for seed oats and seed wheat. The job was done in 48 hours.

REGULAR HOURS OF DUTY ON SEPTEMBER 7. (Office of Secretary Memorandum No. 1031) Regular hours of duty will be required of employees of the Department of Agriculture both at Washington, D. C., and in the field service on Labor Day, September 7, 1942, in view of the war.

AMERICAN HOG BRISTLES. (The National Provisioner, August 29) Revival of interest in American hog bristles for use in brushes is reported. Experimental work has been going on in St. Paul packinghouses and early results are said to be promising--at least promising enough to hold the interest of American brush manufacturers, who stand to lose a good part of the \$60,000,000 business built around imported hog bristles, which are no longer available on account of the wartime shipping situation.

FARM COOPERATION. (Farm Journal and Farmer's Wife, September) When families without telephones in School District 104, Furna county, Neb., want anything in town these rubberless days, they hang a red flag on the gatepost or mailbox. Any neighbor driving by will stop and pick up the order.

The Daily Digest

LIBRARY
RECEIVED

★ SEP 11 1942 ★

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture. U.S. Department of Agriculture

Washington, D.C., September 2, 1942

WEEKLY WEATHER AND CROP BULLETIN. Threshing of winter wheat has been largely completed, except in some later northwestern sections. Oat threshing is nearly done in most areas, although there is considerable still in shock in the upper Ohio Valley and northern portions of the middle Atlantic area. While harvesting and threshing have been largely completed in the eastern and southern portions of the spring wheat belt, work was seriously delayed by rain and fog in North Dakota.

While development of corn continued satisfactorily in practically all important producing sections, cloudy, showery weather over much of the Corn Belt and relatively low temperatures in large areas slowed progress. Recent rains improved late corn in southern portions of the belt, especially the southern Ohio Valley and southern Great Plains. Late reports show local damage from frosts of last week in the upper Mississippi Valley.

Cotton made fair to good development in most portions of the belt. In Texas progress was fairly good in later producing sections, with picking advancing favorably in north-central and eastern counties. In Oklahoma progress was fair with early bolls opening generally; picking is making fairly good advance in the south; the general outlook is good to excellent in the southwest and fair to good elsewhere. In central States of the belt progress was satisfactory to good, with picking becoming more general in northern sections. Conditions were more favorable for holding weevil in check.

Fall truck and gardens advanced satisfactorily, though in the middle East and Southeast warmer weather would be helpful while rain is needed in many northeastern localities, especially northern New England. In the southern Ohio Valley fair weather was more favorable for harvesting tobacco and in the south Atlantic area marketing was active. The harvest of peanuts has become extensive in the southern commercial areas of Texas, with yields good, while both peanuts and cane are promising in the Southeast. The ripening of peaches was delayed by cool weather in the northern middle Atlantic area.

In California, low temperatures in the Great Central Valley retarded ripening of fruit and thereby caused somewhat the harvest labor shortage. Potatoes need rain in the heavy producing sections of Maine; there are reports of tubers rotting in New York and many are small in size in Pennsylvania.

The range needs moisture in much of the Rocky Mountain area and southern Great Basin, but recent showers have been helpful in Texas and the north-central and northwestern portions of the country. East of the Rockies, pastures and stock are in mostly satisfactory condition. New citrus fruit are holding well in Florida, but the crop is reported light in parts of southern California.

VEGETABLE DRYING TESTS IN PROGRESS. (The Fruit Products Journal and American Vinegar Industry, August) Modern dehydration processes can reduce a batch of 80 pounds of peas to 15 pounds or 50 pounds of cabbage to 4 pounds within a period of six to ten hours according to specialists at the N. Y. Experiment Station at Geneva, where extensive investigations are under way on the drying of vegetables in an experimental dehydrator. The station specialists have already made tests on different varieties of cabbage, peas, and beets and have also successfully dehydrated sauerkraut, swiss chard, and sour cherries. Because of the large number of varieties of different vegetables available on the Experiment Station farm, the adaptation of varieties to dehydration is receiving special attention and already marked differences between varieties have been observed. Also, the degree of maturity best suited to the preserving of vegetables by drying is under study, as well as the effect of drying on the vitamin content of the dried product. While the station investigations have not yet progressed far enough to draw any definite conclusions, it is hoped that by the end of the growing season information will be available on the effect of dehydration on the palatability and nutritive value of vegetables and on methods of storing and packaging the dried products so as to preserve these qualities.

PREDICTS DRY MILK COMPETITOR OF FLUID AFTER WAR. (Dairy Record, August 19) Intense competition between manufacturers of dried milk and distributors of fluid milk at the war's end was predicted recently by C. F. Christian, secretary of the Milk Producers Federation. He declared that because of the tremendous production of dried milk which will have to find an outlet, the natural place to sell the product will be the home. It is probable that powdered milk will be sold in cans to grocery stores and it will be much easier for the housewife to buy a ten pound can of dried milk occasionally than having fluid milk delivered daily. He stated that dried milk offers far more serious competition to the fluid milk industry than evaporated milk.

NEBRASKA RURAL HEALTH COOPERATIVE. (Extension Service Review, August) The Sand Hills Cooperative Health Association was organized recently in Thedford, Nebr. More than 100 ranchers and townspeople from an area of several hundred square miles have invested \$30 a family. Four years ago, Thedford lost its only doctor, and since then people have had to travel as far as 90 miles across the hills to get medical aid. Hospital facilities have been available only at Alliance and Broken Bow, each 100 miles from Thedford. The association was set up for Thomas County, part of Blaine, and southern Cherry County. Family memberships will provide about \$6,000, the Nebraska State Department of Health will provide \$4,000 of State and Federal funds for carrying on the public-health part of the program, and school districts and county commissioners will provide another \$2,000 for services rendered, making the total budget about \$12,000.

A doctor and a nurse will be selected by the association, subject to the approval of the State department of health. The program will include an annual physical examination; immunization and vaccination against smallpox, typhoid fever, and other diseases; consultation, not only from Thedford but from Purdum, Brownlee, and Seneca; and all necessary drugs as prescribed by the doctor, and other attention. The association will provide a program of public health and prevention and health education in the schools.

September 2, 1942

RESEARCH SAVES MONEY. The Washington (D.C.) Daily News recently ran this editorial: "A clip sheet from the USDA brings the news that \$500,000 a year is being saved by marking Federally inspected meats with an indelible purple fluid instead of with gelatin labels. This hopeful economy became effective shortly after June 30, 1907. We wait with eager interest to learn whether the Department of Agriculture has thought up any other way of saving money in the 35 years since then."

Gove Hambidge, Yearbook editor, and now editor in the Department's Research Administration, answered with this letter to the News: Sure the Department of Agriculture has thought up other ways of saving money in the past 35 years. Take, for instance, dehydrated foods. Food that would have taken 4 to 6 ships to carry abroad now goes into one ship. I leave it to you to figure what that means in the present situation. We don't by any means claim all the credit for developing dehydrated foods, but we have helped a lot. Again, there is brucellosis of cattle, otherwise known as Bang's disease, or contagious abortion, the germ of which causes undulant fever in human beings. At present, reactors to the brucellosis test are slaughtered; last year there were 182,000 of them, with an average value of \$93.28. Recently we developed a method of calfhood vaccination which promises to save immense numbers of animals in the future.

Or consider hog cholera. In a bad outbreak, 10 percent of the hogs in the United States used to be wiped out -- equivalent, say, to 13 million people being killed by a single disease. Simultaneous inoculation, developed by the Department, now keeps this plague under much better control. The discovery of crystal violet vaccine is a new improvement. Apples -- premature dropping of the fruit has always caused large losses to producers. Recently the Department developed a hormone spray that outwits nature, keeps the fruit on the tree until it is properly colored. Judging from the way growers are using it, they think it is good stuff."

REDUCTION OF DAIRY PLANT ROUTES. (Editorial in Dairy Record, August 26) For the most part, dairy plants have perfected plans to reduce the mileage traveled by the trucks by at least 25%, in conformity with ODT order. Fred E. Koller, Division of Agricultural Economics, University of Minnesota, states that "probably the greatest waste in creamery butterfat assembly is the excessive overlapping and duplication of the routes of neighboring and other creameries. University of Minnesota research studies have shown that it is not uncommon to have two or three, and in extreme cases six or seven trucks from as many different creameries assemble butterfat along given stretches of road. Such duplication is to be condemned as wasteful in normal times. In the present emergency it represents a use of tires and trucks which must be eliminated in the national interest." Frank Robotka and Robert L. Morse of the Agricultural Economics Department of Iowa State College corroborate Mr. Koller's statement.

"STAGGERED" EGGS IN STREAMLINED BOX. (Foreign Commerce Weekly, August 29) A new streamlined egg box has appeared in Argentina, according to press dispatches. Space is left on two sides of each layer so that the eggs can be "staggered" and dropped into cups formed by the layer below. The cases are made of wood and hold 30 dozen eggs each in the space formerly taken by 17 dozen in the old-style box.

REA HOME-MADE FOOD DEHYDRATOR. (Rural Electrification News, August) Engineers in REA's Equipment Service Section have designed a new electric food dehydrator—a dehydrator that the 2,000,000 farm families with electric power can build more cheaply and easily from materials still on the market in many areas. Rubber for rings that go around the tops of glass jars is scarce. Stocks of tin to make cans are also scarce. Preservation of food by drying reduces the weight by 75 percent or more, and reduces the bulk to one-fourth to one-ninth of its original volume. Thus, if a farm family dried and stored in glass jars (without rings) only one-third or one fourth of its food, more than 100,000,000 jars and cans could be spared.

A home-made dehydrator of the REA design can be built by one man in two or three days for less than \$20. From 20 to 40 pounds of fresh vegetables or fruit may be placed in the dehydrating trays at one time. The trays, with an area of 22 square feet, are made by covering wooden frames with porous cloth. Cheesecloth, pajama cloth, or muslin can be used for tray coverings. Tested in REA offices in St. Louis, this dehydrator had a maximum current consumption of five kilowatt hours per one pound of dried material. From 8 to 12 hours were required to dry the foods tested.

CLOTHING RATIONED IN IRELAND. (Canadian Textile Journal, August 28) According to a report from Dublin, the Government of the United Kingdom has decided to reduce the quantity of cotton goods exported to Eire, and to entirely cut off supplies of rayon piece-goods or woollen materials, for the present at least. As a result of these restrictions on imports, clothing of virtually every description has been placed under Government control in Eire.

J. M. BATCHELOR, SCS, AWARDED ARNOLD ARBORETUM PRIZE. (Science, August 28) In 1940 Dr. James R. Jewett, of Cambridge, Mass., emeritus professor of Harvard University, presented the Arnold Arboretum with money for two annual prizes to individuals who have made significant contributions to the improvement of the native beach plum. The Jewett Prize of \$100 for 1942 has been awarded to J. Milton Batchelor, of the U.S. Soil Conservation Service, for his outstanding work with this fruit. His particular duties in the SCS are to find variations in native fruits which may prove of economic value, to study their adaptability for use in soil-erosion control, and to ascertain their possibilities as ornamentals. During the past few years he has located, propagated, and distributed a number of beach-plum varieties with larger and better fruits.

FIRECRACKER, NEW AMERICAN HOLLY. (Country Gentleman, September) Firecracker is the name of a new American holly variety that carries an everlasting crop of scarlet berries. Found growing in a timber farmer's dooryard in Virginia, the new holly clings to its fruit for two years and produces a new season's crop at the same time. Common American holly blossoms, fruits and drops its berries in one year, so that from spring until fall it has no red berries. Firecracker has at least one crop of red berries every day of the year. E. Price Carpenter, owner of the holly, dug the first young tree in his woods thirty years ago, and later found two more. With cuttings from the Carpenter tree, nurserymen and plant specialists will be able to multiply the everbearing holly.

★ SEP 11 1942 ★

U. S. Department of Agriculture

The Daily Digest

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., September 3, 1942

ARMY TO BUY MULES FOR PACK USE. (Western Livestock Journal, August)

The army mule, long a standby for drawing escort wagons and other army vehicles but rather generally replaced a few years ago by motor transport, is now springing into the limelight as a beast of burden, according to Lt. Col. Koester of the Quartermaster Corps, Headquarters Western Remount Area. The Army Remount Service expects to purchase pack mules. The type of pack mule required by the army differs from the light burro type. The army mule must be prepared to carry a heavy load long distances over any kind of terrain and frequently at rather rapid rates of march. The animals must be solid dark colors, from 4 to 8 years of age and from 14-3 to 15-2 hands high. They must weigh from 1000 to 1200 lbs. and be sound. Either mare or horse mules will be purchased. Owners who have mules meeting the requirements should communicate with the Western Remount Area, 72 Third Ave., San Mateo, Calif.

COMPRESSED DEHYDRATED MEAT. (American Egg & Poultry Review, August)

With cargo-ship space critically curtailed, the meat industry's newest research development—dehydrated and compressed beef and pork that occupy only a fraction of the space that ordinary meats would require—takes on strategic importance. By the new process, which employs continuous temperature-control, meat intended for export is boned, ground, dehydrated, compressed, and packed in hermetically sealed, tin containers; and in that form, one shipload of the food product becomes the equivalent of ten shiploads not so processed.

LOCKER OPERATORS TO MEET. (The Locker Operator, August) The fourth annual national meeting of locker operators at Kansas City, September 22-24, will center around "coordinating the frozen food locker industry to the nation's wartime needs." Roland Welborn, Office of Agricultural War Relations and Richard Juhnichen, frozen food consultant of WPB's Food Supply Branch, will appear on the program to explain the part their agencies take in obtaining materials and supplies for the operation of our locker plants. Covering the problems of the industry in relation to transportation, manpower and salvage (fats) will be speakers from the Office of Defense Transportation, the Federal Manpower Commission and the Industrial Salvage Bureau. Bruce L. Melvin, Office of Price Administration, will explain the effect of OPA rulings on the locker industry.

AGRICULTURE FIFTH AMONG DEFERMENTS. (Farm Journal and Farmer's Wife, September) Agriculture ranks fifth in the list of occupational deferments from Selective Service, according to a Washington announcement. The four ahead of farming are:—production workers in aircraft, ships, ordnance and ammunition.

September 3, 1942

AMERICAN PHYTOPATHOLOGICAL SOCIETY. (Science, August 28) At the summer meeting of the Society at Toledo, Ohio it was brought out that the depletion of the ranks of scientifically trained men constitutes a serious menace, not only to present essential services to agriculture, but also to the future because of discontinuance of certain basic researches in plant disease control measures. A survey with respect to extension plant pathologists in the country indicates that few states have an adequate extension service. Some states have no extension plant pathologist at all, and some of the most important agricultural states have a single extension plant pathologist, when two or three are needed. Pathologists themselves are trying to do what they can by assembling and exchanging information, but the situation can not be alleviated properly until more men are available for insuring the nation's supplies of essential materials from economic plants.

SHARE IT WITH YOUR NEIGHBOR! (Rural Electrification News, August) Let's get together with our neighbors and talk about farm equipment that might be shared. The washing machine and iron stand idle most of the week. Three or four neighbors might use one machine without much extra wear. In west Texas, a "Help Yourself Laundry" sprang up during a drought period. Homemakers set up equipment in a vacant storeroom and brought their laundry, taking it home in a wet-dry state to complete drying. Every user paid for the use of equipment and water. Many other appliances can be shared in the same way. Wise planning might pool equipment to serve a whole neighborhood in a central school or church room. Perhaps some good second-hand equipment might be bought. Such a center might also preserve food through dehydrators or pressure cookers. If sewing machines are available, coats, hats, and dresses might be made over for another season. Users must figure how much water, heat, and light the equipment will use, to learn how much each user will pay. Tractors, combines, and wagons can be shared, too. And one trip to town may serve the needs of three or four neighbors, saving tires.

IT ISN'T JUST TOBACCO. (Article by this title in Foreign Commerce Weekly, August 29) To the average smoker, unaware of the mysteries of tobacco manufacture, a cigarette merely provides an agreeable pastime, and pipe tobacco forms a fit accompaniment to fireside reveries. He probably would not guess how many intriguing favors from various parts of the world are employed in processing all tobacco products. Aromatic substances frequently used are tonka-beans from Venezuela and Brazil, vanilla from Mexico and Tahiti, licorice from the Soviet Union and Spain, St.-John's-bread from the Mediterranean, chocolate from Brazil and other American Republics, maple sugar, rum, alcohol, deer's-tongue, and fruit flavors from our own country. Essential oils, such as rosemary and nutmeg, might be added to this list.

A material which is not a flavoring, but nevertheless important in tobacco manufacture, is glycerine. Used as a spray on shredded tobacco or as a "dip" through which the leaf is run, glycerine serves to hold together the tiny shreds of tobacco and gives the cigarette constant burning qualities. Because of exigencies of war industries and shipping uncertainties, serious shortages in these materials may occur, and manufacturers are being forced to turn to substitutes.

September 3, 1942

NEW PAMPHLETS ON "FOOD IN WARTIME." (The Fruit Products Journal and American Vinegar Industry, August) Six pamphlets in a new series, "Food in Wartime" have just been issued by the University of California Press. The subjects covered are; theory and background of the necessity for rationing, problems of distribution, need for changing forms of food, farm problems of production, analysis of total food needs, and food price control. This series may be secured from the University of California Press, Berkeley, Calif., at 25 cents per pamphlet.

WOOL OUTPUT TO BE INCREASED IN N. B. (Canadian Textile Journal, August 28) A campaign to increase flocks of sheep in the Province of New Brunswick and at the same time appreciably increase wool production, is being sponsored by the Provincial Minister of Agriculture, according to a report issued by the Department of Commerce. Persons with adequate facilities for pasturage are urged to increase their flocks. The Dominion government is providing financial assistance in provincial programs to increase the sheep population in this country. The plan provides for payment of freight charges on the movement of female breeding stock and for the loan of rams of farmers starting to raise new flocks.

ANCIENT IRRIGATION IN CHINA. (Article by this title in Scientific Monthly, September) The succession of canals built in China to lead water from the King River for the irrigation of lands in Wei-Pei is an impressive instance of the efforts men have put forth to secure means of livelihood. The difficulties and partial failures encountered may be laid to physiographic changes as well as to failure over a large area to conserve soil and water, through suicidal farming and overgrazing of pasture lands and the consequences of armed invasions either from outside or inside the country.

Finally, after 2,000 years, the constructive genius of the Chinese people has made use of modern engineering with power-driven equipment for excavation and construction to restore an age-old irrigation project to a semblance of its first condition. Lands that had lain bare and unproductive are made to yield crops again for its people. But still the high silt content of the irrigation waters remains a serious problem of maintenance. Silt control through erosion control on headwaters remains a necessary condition to the continuing success of this project, as its long history amply implies.

FARMERS GOOD PROSPECTS FOR INSURANCE. (Farm Journal and Farmer's Wife, September) Best prospects for life insurance at the present time are farmers. That is the conclusion of an insurance agent in Rockwell City, Iowa (population 2391). In three consecutive weeks, he sold 47 policies, totalling \$103,100, all to farmers, farm workers, farm housewives and people directly connected with farm life. Most of the policies carry family protection, and some have the double indemnity taking care of the possibility of accidents on the farm.

SWEET DELICIOUS FOR WINTER. (Country Gentleman, September) Sweet Delicious is probably the best sweet apple for winter use. This variety, originated at the New York Experiment Station, now has been tested sufficiently to have established its value. It is an excellent apple for baking, for eating; also is satisfactory for making homemade apple butter where the recipe calls for sweet apples.

September 3, 1942

NUTRITION VALUES OF CANNED FOODS STUDY. (The Journal of the American Medical Association, August 22) A research program for the study of nutrition values of canned foods has been inaugurated with grants by the National Cannery Association and the Can Manufacturers Institute with supplementary grants from the University of Wisconsin, Madison. The first phase of the program will cover the assay of about twenty-five products including fruits, vegetables and seafoods for six vitamin factors which are regarded as being of established importance in nutrition, namely A, C, thiamine, riboflavin, niacin and pantothenic acid. Assays for the vitamins will be made at three universities prominently identified with advances of knowledge in nutrition. Mineral analyses will be made in laboratories connected with the canning industry. In addition to the vitamin and mineral analyses, support will be given to other studies to be conducted in two other universities. It is desired to determine the effect of storage on vitamin content of representative products and to make a series of correlation tests which will compare the results from methods used for assays and those from standard feeding tests. Other investigations will pertain to the distribution of vitamins as between solids and liquid content, and the changes that may result from the preparation of foods for the table.

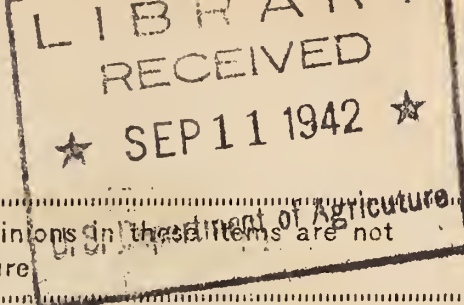
BRITISH MINISTER OF AGRICULTURE. (Tribune, London, July 31) In the emptiest House seen for weeks Parliament discussed agriculture recently. One Member suggested the reason for the poor attendance was the general satisfaction with the progress made by the Minister of Agriculture. Members certainly feel that Hudson has done a very good job. His speech dealt largely with agricultural research. He mentioned the difficulty of such work in this country owing to the immense variety of soils and climate, and the lack of uniformity of farming practice. He mentioned that 850 different types of plough were in use. A further point he made was: "It's very usual, in my experience, to find that if you discuss any one problem with farmers in different parts of the country, they talk in almost completely different languages; so that an explanation of a process which is applicable in one part of the country may seem complete nonsense to farmers in another part....We often tend to think that all farmers are aware of sound agricultural principles and practice, although they may not always put them into operation. I am afraid that is not the case."

The general impression left by the debate was that the Ministry of Agriculture had done exceedingly well in providing for nearly two-thirds of our foodstuffs from our own land.

WORLD'S LARGEST HAYRAKE? (Capper's Farmer, September) Are the 2 hayrakes used by Peterson Brothers in Garden county, Nebraska, the world's largest? They bought 2 new rakes, and heads and teeth of 3 others to make the two 30-foot tractor units they use for 6,000 tons of prairie hay. One rake was cut into four 3-foot pieces, which were welded to one end of each of the other 12-foot rakes to make them into 15-foot lengths. One end of each then was hinged to the rear of a small high-speed general-purpose tractor.

NON-FARMERS AID TEXAS HARVEST. (Farm Journal and Farmer's Wife, September) Texans registered school children for farm work in 97 of their 109 counties, women in 58 counties and in 40 counties planned to use most of the townspeople during harvest peaks.

The Daily Digest



Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., September 4, 1942

BELT FOR PICKING POTATOES. (Market Growers Journal, September)

In Nebraska, Idaho and California many growers furnish pickers with a canvas belt which eliminates the need for baskets, pails or crates. A bag is suspended from two leather straps and dragged along between the legs of the picker as he straddles the row. This allows use of both hands and makes for rapid work. About a bushel is picked into each bag, after which the bag is unsnapped, set upright and replaced with an empty one which is carried rear of the belt. Users of this belt claim that less bruising results than where baskets or crates are used. It may not be adapted where the ground is stony or where bags are scarce. This method is practically unknown in the east and should be introduced for trial.

AUSTRALIAN VICTORY SUITS. (Canadian Textile Journal, August 28)

Simplification in men's wear lines and elimination of non-essentials in women's apparel were effective in Australia on July 29. Features of the new regulations as they apply to men's clothing include the prohibition of vests and trouser cuffs, and the setting of a maximum of two buttons on coats. These restrictions are expected to reduce the material requirements for suits by 12 percent. Quality of suit fabrics has also been standardized.

ADDED COSTS ALLOWED ON BEEF AND VEAL SALES TO ARMED FORCES.

(War Letter for Agriculture, August 31) Sellers of beef and veal carcasses and wholesale cuts to the armed forces and to the FSOC now may add costs of certain special services and actual transportation to the maximum prices earlier established, OPA advises. Purpose is to remove factors which tend to discourage sellers from doing business with the armed forces and the FSOC. The amendment permits sellers to: (1) Add actual cost of freezing and special packaging when these services are performed according to specifications for overseas shipment: (2) Add the actual transportation charges in car route sales, to the f.o.b. shipping point prices.

CONTROL ON ELASTIC FABRICS TO ASSURE SUPPLIES FOR MILITARY.

(Victory, September 1) WPB orders announced August 27 prohibit the processing of any elastic fabric, rubber yarn, or elastic thread except to fill orders or contracts with the Army, Navy, or specified Government agencies, or for use in a limited list of essential health and industrial articles. Manufacturers, knitters, weavers, jobbers, and dealers are required to file detailed reports of their inventories of elastic fabric, rubber yarn, and elastic thread. Information obtained from these reports will be used to determine the extent to which the manufacture of essential civilian articles will be permitted.

September 4, 1942

EXPERIMENTS ON CONCENTRATED FOOD BARS. (The Fruit Products Journal and American Vinegar Industry, August) There is a need for two types of concentrated food bars of the customary 5¢ candy bar size and appearance, but better balanced nutritionally than the latter. One type is a bar high in protein, mineral elements and calories; the second is one in which dried fruits predominate, it, too, being of high caloric value and basic ash minerals as well as rich in sugars. Hikers, refugees from war zone cities, and men in the military service particularly have need for such concentrated food bars or emergency rations. On the other hand, if the bars are attractive in appearance and flavor, they should also find favor with the general public for sale at candy counters, etc.

Most candy bars now on the market consist chiefly of sugar, and while they are high in fuel value, they furnish little else. The Army's emergency field ration (ration D) is a chocolate bar containing powdered milk, oat flour as an anti oxidant, added vitamin B₁ and other ingredients as per Army specifications. It is of high nutritive value, but very "heavy"; it is difficult to eat with comfort.

The experiments reported in this article were made (at the University of California) chiefly to find a more satisfactory D ration and a fruit bar that would appeal to the average civilian consumer. The D ration should not freeze at 0° F. nor become unduly soft at 100-120° F.; as soldiers are serving under both these extremes of temperature in this war.

FARM IMPLEMENT SHORTAGE. (Business Week, August 29) Production of farm machinery during the implement industry's year beginning Nov. 1, 1942, will be shrunk to a small fraction of the base period--November, 1939, to November, 1940. The actual lump sum of materials to be devoted to farming has not yet been settled. However, farmers will have to meet the war crop goals in 1943 with much less than 50% of normally available new machinery, perhaps, as little as 25%. At present they are operating on an average of 82% of the base.

The job of deciding just how much war-needed metals and materials can be allocated to the farm front was being worked over last week by the nation's top committees. The Foods Requirements Committee, headed by Secretary Wickard, advocated a total allotment of production which, even with the Department of Agriculture's naturally favorable influence, was well under 50% of the 1939-40 base. The farm machinery branch of the War Production Board goes along with the Foods Requirements Committee. The Office of Civilian Supply, however, produced a figure of its own, and a lower one. Last week the decision had reached the Materials Requirements Committee, and if it fails of an amicable agreement there, Donald Nelson may have to settle the argument....

Essentially the government allocators feel that if the existing body of farm equipment, which has been built up for several years by large and increasing sales, can be kept going by replacements, the sharp edge will be off the need for more new machinery. To maintain the farmer's present tools at capacity usefulness, however, means constant replacement. Hence the allotments for repairs and parts hold high honors. Under the existing regulations, repairs and parts manufacture is at 150% of 1939-40, and even though new machinery next year may be cut as low as 25% of this base, repairs and parts are more apt to go up from 150% than down.

RIBOFLAVIN (VITAMIN G) IN POULTRY RATIONS, (North American Veterinarian, September) As long as dried skim milk is available, it is comparatively easy to formulate poultry rations with sufficient riboflavin. However, with a limited supply of this excellent source of protein and riboflavin, more attention must be given to other sources of the vitamin. Dried buttermilk, dried whey, and liver meal are excellent animal protein supplements and are all rich in riboflavin. Alfalfa meal, while not a rich source of protein, is a good source of riboflavin and, if the meal is of good quality, it is a good source of carotene. This product may be used to advantage in raising the riboflavin content of rations limited in their content of dairy products. It should be noted also that the young plants of oats, timothy, wheat, and blue grass are all fairly rich in riboflavin. Thus, access to green plants will also do much towards satisfying the riboflavin requirements of poultry receiving rations low in animal products.

BLUE COMB OR PULLET DISEASE. (Everybodys Poultry Magazine, September) Scientists have not attached a high-sounding name to this disease as there is yet so much to be learned about it. The disease parades now under various names in different regions. Pullet disease is also known as Blue Comb, Summer-, Housing-, Unknown-, New-, X or XX, Cholera-like--and Tom Barron's disease, now wheat poisoning and contagious indigestion. Almost everyone of these names refers to some outstanding feature of the condition.

Reliable reports as to the occurrence of pullet disease have come from New Jersey, New York, from most of the New England states, Michigan, and more recently from California and Ontario; verbal reports indicate its occasional appearance in North Carolina, Pennsylvania and Utah. Pullet disease occurs primarily in chickens 5 to 7 months old, but similar cases have been observed in 4-week-old chicks and in 2-year old layers. Various breeds seem to be susceptible, with heavy breeds predominating. In spite of the name, males may be afflicted. Turkeys occasionally come down with the disease. A Connecticut survey over a period of nine years showed an incidence of 15 percent among the disorders of growing and adult birds. There was a decided seasonal increase between June and November with a peak in August.

POULTRY

/ LIGHTING SCHEDULE TESTED. (Poultry Tribune, September) The ordinary terms of "day" and "night" will mean nothing to an experimental flock of 350 laying hens in a completely blacked-out laboratory at the New Jersey Experiment Station. Their schedule calls for 14 hours of light, followed by 12 hours of darkness. This schedule will be followed rigidly, regardless of the usual hours of daylight.

"There is some evidence," says Dr. Willard C. Thompson, head of the poultry department, "that this highly artificial control of light and dark hours may increase egg yields from given flocks by a fairly high percentage, perhaps even from 15 to 20 percent. We hope to continue this project through the coming year and to keep such records as will give us evidence of actual costs and other factors which would determine whether the method can be practically applied by commercial egg farmers." Previous work along this line indicates that the success of this particular lighting program may be due to its synchronization with the process of ovulation in the hen.

FARM LABOR COOPERATIVE PLANS. (Country Gentleman, September)

One of the most promising developments in view of the farm-implement shortage is the increasing number of community machinery pools which make it possible to squeeze the last possible hour of work out of tractors, combines, hay balers and the like.

In Lancaster County, Pennsylvania, 25 farmers formed the Farmers Machinery Co-operative, Inc. They managed to get priorities to accumulate four combines, two automatic pick-up balers, two tractors, a truck with a 400-gallon sprayer attachment, an ensilage cutter, a new one-and-a-half-ton utility truck, and assorted tillage machinery. The Farm Security Administration gave them a \$13,000 loan to finance the deal. Not only is the equipment being used on the 3500 acres of co-op members, but also is filling in a day-and-night schedule with custom work for other farmers in the county. Instead of producing 15 percent less food for freedom, the co-op members are turning out at least 10 percent more.

In the tri-county area around Oldham, South Dakota, farmers are keeping 'em moving for the duration with a transportation association that is paying dividends in time, gasoline and rubber. They pooled their cars and trucks, and now, when eggs, cream and poultry go to town, one association member takes them, making pick-ups and purchase lists en route. In town he does the selling and the buying for the members on his route and drops off the purchases on the return trip.

U.S.-YUCATAN HENEQUEN-PURCHASE CONTRACT. (Foreign Commerce Weekly, August 29)

A contract between Mexico and the United States for the advance sale of Yucatan's henequen production has been signed. The terms of the agreement provide that the entire production of the Yucatan Henequen Association for the next 3 years will be bought by the Defense Supplies Corporation, after taking into account Mexico's normal consumption requirements. An annual minimum of 350,000 bales of an average weight of 400 pounds was therefore fixed for purchase.

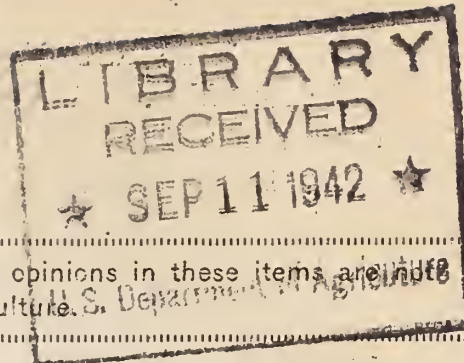
FLAVOR CHANGES IN STORED POULTRY. (The U.S. Egg & Poultry Magazine, September)

At Kansas State College, an experiment with dressed poultry is being conducted. The purpose is to determine factors of fat oxidation and off-flavors which may result from frozen poultry held in storage. The experiment, to cover a period of two years, was started in the spring of 1941 and will be concluded in the spring of 1943....

One test showed that packing in a can rather than a box retards oxidation but the difference in packing up to nine months of storage did not make a difference in flavor and aroma of the cooked birds. The can-packed birds, however, were regarded as definitely improved in tenderness and juiciness. As fat oxidation increases, the greater becomes the chance for off-flavors, but up to six months of storage the increased oxidation in eviscerated birds seems to improve the flavor and aroma.

At the end of a nine-month period, different lots in storage, based on samples studied, ranked in the following order for flavor and aroma: (1) Eviscerated, wrapped in plain cellophane, box- and can-packed; (2) Eviscerated and scratched, box- and can-packed; (3) New York dressed, box- and can-packed. The different lots ranked in virtually the same order and with about the same scores at the end of the six-month storage period, with the exception of the New York dressed birds which were still in bottom position but had dropped to a much lower point in score.

The Digest



Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture. U.S. Department of Agriculture

Washington, D.C., September 7, 1942

THE DIGEST NOW ON WAR BASIS.

"The Digest is now on a wartime basis. Issued weekly, it will continue to point out, and quote from, articles of special interest to Department of Agriculture employees. It will continue to call attention especially to items which indicate new developments and trends in the agriculture and food fields."

FATS AND OILS IN WARTIME. (Scientific Monthly, September) Ordinarily we tend to think of fats as foods--lard, butter, oleomargarine, kitchen grease, and so on. We remember that one factor in the German collapse of 1918 was the low fat content of the civilian diet which deprived the people of valuable energy food and vitamins. To-day the existence of synthetic vitamins renders fats less indispensable in that respect.

But in war or at peace fats and oils are necessary not only for food but also for making soap, paint, varnish printers' ink, linoleum, metal products, textiles, leather goods and glycerine. Certain oils are also necessary to act as special lubricants for high-speed motors and metal-turning lathes.

In war all these uses become more urgent than during peace. Fats and oils have primary importance as foods because they are of high caloric and energy-giving value. Not only the armed forces but also civilian workers under greater strain and on longer hours need more fats than usual. Fats and oils also carry certain of the important vitamins in solution in many foods and thus assume added importance. Glycerine is important in the making of nitroglycerine and other explosives. In peacetime it is a byproduct of the soap industry, but in wartime soap becomes a byproduct of the glycerine industry.

N.J. POULTRY, EGG AUCTION. (Nation's Agriculture, September) The cooperative poultry and egg auction at Vineland, N.J., is an outstanding example of what can be accomplished through the auction method. At the end of the seventh fiscal year of the cooperative, value of eggs sold has grown from \$623,194.98 in 1935, to \$1,606,807.61 in 1941. Value of all eggs sold during the seven years totaled \$7,283,172.21. Value of poultry handled during the same period amounted to \$720,871.14. The "Green and White" label of the Vineland Poultry Association really means something. The constitution of the organization says: "This label shall be used only on strictly fresh eggs produced on said members' own farms and shall be pasted on both ends of each case of eggs on which it is posted." The 800 egg producers who are members of the co-op think highly of the auction method.

September 7, 1942

FATS AND OILS. (Western Livestock Journal, August) Nearly 11 billion lbs. of fats and oils were used in the United States in 1941; seven billion of these were eaten; two billion made into soap; a billion used in paints, varnishes, printing inks, and linoleum products; and half a billion lbs. went into industrial purposes. Most of these fats and oils were produced in the United States, but the Philippines, Africa, Argentina, Brazil, Dutch East Indies and Malaya are important sources. The United States usually produces food fats for itself and for export; but production is one-fourth short of the fats and oils needed for soap; more than one-third short for miscellaneous industries; and almost one-half short for paints and varnishes.

SPHAGNUM MOSS FOR USE IN SURGICAL DRESSINGS. (Scientific Monthly, September) The advantages of sphagnum moss for surgical dressings are its high absorption capacity, ranging from 15 to over 30 times the dry weight of the organic material, its sponge-like matting, porosity, softness, elasticity, lightness and strong acid reaction. Not all species of sphagnum mosses or types of moss peat are of equal value for use in surgical dressings. The larger number of the 40 different species in North America is of little value for this purpose. Only the species which form dense foliage and close-set branches exhibit a high capacity for absorbing liquids and possess soft texture and the qualifications, specified above, of value in surgical dressings.

In the last war arrangements provided for locating as many good bogs as possible and to explore them; to note their size and accessibility to roads, the purity and amount of moss present, and to collect small samples of surgical moss and moss peat or "peat moss" in selected areas and in different portions of the bog. Supplies were early located and made up into a monthly output of surgical dressings exceeding 20,000 pads for American war hospitals. There is a possibility that during the present emergency surgical dressings again may be required in hospital work in Alaska, Canada and elsewhere on this continent, or for shipment to less favored communities.

PREVALENCE OF UNDULANT FEVER. (North American Veterinarian, September) The Illinois Health Messenger for August, 1942, points out that according to a recent study of case reports of undulant fever on file yearly since 1930, in each of the 48 states, 32 of the states had their highest recorded prevalence of this disease in 1939, 1940 or 1941. Midwestern states, within this classification, include: Illinois, 235 cases, 1939; Indiana, 58 cases, 1939; Iowa, 354 cases, 1941; Kansas, 170 cases, 1940; Michigan, 252 cases 1939; Minnesota, 174 cases, 1941, and Wisconsin, 130 cases, 1941.

It is probable that the cases on record are only a rough index of the actual number of cases that occur.

HALF OF FARMERS ARE BUYING WAR BONDS. (Successful Farming, September) According to a recent survey conducted by the American Institute of Public Opinion, U. S. citizens would institute a nationwide program for deduction of a flat 10 percent from all pay envelopes to buy War Bonds and stamps. Fifty percent of the U. S. farmers have purchased bonds or stamps. In the Midwest, where one-half of the nation's farm wealth is concentrated among one-third of the country's farmers 66 percent have purchased bonds or stamps. This percentage will increase, because these farmers are earning right now their highest incomes in decades.

September 7, 1942

COTTON INNER TUBE PROTECTOR. (Poultry Tribune, September) A direct outgrowth of the nation's rubber emergency is a cotton cord protector for tire inner tubes that will add thousands of miles to thousands of old tires already pronounced unfit for use and ticketed for the scrap heap. This inner tube protector's purpose is to insulate and protect the tube against the chafing action of breaks or other damage inside plies in the cord body of the tire. It contains no rubber and is shaped in a full circle to fit snugly and neatly around the tube.

TERMS FOR COFFEE IMPORTS. (Victory, August 25) Terms under which coffee may be procured and imported into the United States from foreign countries under contracts entered into subsequent to July 2, were announced jointly August 18, by the BEW, the OPA, the WFB, and the Commodity Credit Corporation of the USDA. The plan provides that the importer shall become the agent of the CCC to purchase and import for its account specified quantities of green coffee from foreign countries. Generally, the plan provides that importers will repurchase coffee, upon arrival in the United States, from the CCC at a price which does not include increases since December 8, 1941, for ocean freight, marine and war-risk insurance, and certain other items of special expense. As a result, the CCC will absorb these increased wartime costs.

BOLIVIAN AGRICULTURAL CENSUS. (Foreign Commerce Weekly, August 29) The Bolivian Ministry of Agriculture has announced a project for an agricultural census to determine the tillable-land area, the area under cultivation, production of each area, and the volume of goods imported for consumption. An appropriation has been requested in the 1943 budget for the establishment of an Agricultural Statistical Office to conduct the census.

MORE SOYBEAN MEAL. (Country Gentleman, September) There's not enough fish meal and meat scrap to go around. Soybean meal is the best available high-quality protein supplement, and there are large supplies on hand. Poultrymen can get satisfactory results from soybean meal, but should not expect, on the average, as good results as with animal protein supplements. Soybean meal contains less calcium and phosphorus than fish meal and meat scrap, and also less riboflavin. These deficiencies may easily be made up by bone meal to supply calcium and phosphorus, and alfalfa-leaf meal and dried distillers' solubles for riboflavin.

Diets of high soybean content apparently have a tendency to produce goiter in chickens, so it will be worth while to use iodized salt. A special effort should be made to obtain soybean meal that has been properly cooked or heat-treated. Protein in uncooked meals has only 50 to 60 percent of the biological value of properly cooked meals, while experiments at the Washington Experiment Station show that the protein of properly cooked soybean meal often is better than in meat scrap.

REDHAVEN PEACH. (Successful Farming, September) Redhaven Peach, a variety maturing 30 days earlier than Elberta, has just been announced at Michigan's South Haven Experiment Station. The fruits are medium in size, slightly elongated, and usually are almost completely covered with brilliant red color. The flesh is yellow, firm, and fine-textured, and moderately sweet in flavor. Redhaven trees are vigorous and productive, with no weaknesses.

September 7, 1942

UNCLE SAM'S HOUSEKEEPING JOB. (Article by this title in Journal of Home Economics, September) The withdrawal of goods from civilian life is due only partly to the needs of war. It is due also to the destruction of war. Many goods from abroad are no longer available as freely as before because of the loss of shipping as well as the need to use that shipping where it will aid the military effort.

The loss of our former imports of burlap coincides with the need of burlap and sandbags for increased bagging of all kinds of war products and for indirect military output. Since the jute used in one good-sized rug will make 48 sandbags, there is little question that we will sacrifice the former for the latter.

The needs of war strike at some unexpected spots. The expanding of the air force requires an expanded supply of parachutes and every one of them absorbs enough silk to make 185 pairs of stockings. Hopes of using nylon for hose disappear when the need becomes so great that Army requirements cannot be satisfied by silk alone. Furthermore, nylon is an ideal material for powder bags. Recourse is then had to rayon, and the supply of rayon hosiery is being expanded far above peacetime levels, but that fiber is also needed to replace certain uses of cotton and wool.

Until recently, when airplane motors were shipped abroad, they were coated with a heavy grease to protect them during shipment. On arrival this grease had to be carefully removed. Today these motors are wrapped in cellophane and arrive in perfect condition with considerable saving in time and labor, lost under the former grease method.

If we are to have 60,000 planes this year, and twice that number next year, there can be no aluminum for cooking utensils. In fact, there is not enough aluminum even when it is all taken away from the kitchen, so that plywood airplanes are now being used for training purposes. Furniture factories are getting ready to turn out that plywood, and one reason that they are so willing to make the switch is that the brass joints and fixtures which they formerly used in furniture are now needed for such articles as cartridge cases and electrical connections.

EGG CASE IDEAS. (Everybodys Poultry Magazine, September) Make egg cases out of orange crates—that's an idea originating with L. M. Hurd, Cornell University Poultry Department. His plan calls for 150-size orange boxes. This size has to be built up $1\frac{1}{2}$ inches, which can be done by nailing a strip on top of end and center pieces. In addition, strips are nailed up and down on the sides of the crates for strengthening. For poultrymen who deliver eggs to stores, Mr. Hurd recommends a permanent case that is returnable. The kind of case he suggests is made of half-inch matched pine box lumber, with top hinged and a three-inch hasp on it.

FREDONIA GRAPE. (Successful Farming, September) One of the good varieties of grapes developed at the New York Experiment Station is the Fredonia, an early blue grape that grows on a hardy, vigorous, and productive vine. The clusters of this new variety are large, cylindrical, and compact, and the berries are large and round. The flesh is about the same general texture and flavor as that of Concord, but the fruit ripens about three weeks ahead of Concord, which makes the variety valuable for lengthening the period when grapes are available and also for sections where the growing season is too short to mature Concord before frost. Fredonia is useful for dessert and for juice and can be used to some extent for wine.

- - - - -

SEP 18 1942

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

U. S. Department of Agriculture

Washington, D.C., September 14, 1942

THE DIGEST NOW ON WAR BASIS

As announced last week, the Digest is now on wartime basis. Issued weekly, it will continue to point out, and quote from, articles of special interest to Department of Agriculture employees. It will continue to call attention especially to items which indicate new developments and trends in the agriculture and food fields. Your suggestions will help.

- - -

SALT DISTRIBUTION IN HAMS. (Food Industries, September) Variations in the composition of the different ham muscles and their location within the ham influence processing results. Salt distribution is of particular importance in curing and aging, and a knowledge of water distribution is valuable in explaining certain salt movements throughout the meat. In order to obtain information on both these factors, the authors reject sampling methods based on arbitrary measurements which do not take into account the variation in size and shape of the hams, and use instead a method that relates the samples directly to the anatomy of the hams by cutting cross-sectional slices in a predetermined position and then selecting for analysis each muscle segment as it appears in the cross section. Tests on samples so obtained indicated that while there was a similarity of salt content in sound and sour hams, the latter had very poor salt penetration into those muscles where spoilage seemed to be concentrated, in spite of satisfactory salt penetration into other muscles equally distant from the face of the ham.

LAY LEADERS IN NUTRITION EDUCATION. (Journal of Home Economics, September) Professional home economists and nutritionists in the United States today are too few in number to carry on alone the nutrition education that should be done. To extend the services of the professional group there must be a vanguard of willing volunteers. The Extension Service has long sought out, trained, and used lay leaders. Through its neighborhood plan it is now reaching families who had not previously responded to any educational program. This type of leadership has been little used in town and cities, but some similar organization might well be effective.

One of the best examples of the successful use of trained, nonprofessionals is the housekeeping aides group. Between 40,000 and 50,000 housekeeping aides trained and supervised by the WPA have demonstrated how effectively nonprofessional staffs, taught and supervised by a home economist, can supplement the services of professional workers.

FARM TRANSPORTATION PROBLEMS. (Successful Farming, September)

Within the memory of most men actively farming today there have always been plenty of people ready and eager to do all needed hauling. Railroads, waterways, trucks, and family cars engaged in wasteful competition when volume of shipping dropped low. Now we are on the other side of the scale, with all facilities taxed to the limit.

From a national standpoint it seems reasonable that factories for processing coarse agricultural products be located as near the source of supply as possible. To ship farm grains to the Eastern seaboard for conversion into alcohol and then to ship the by-product back several hundred miles fails to make sense. The movement of soybeans to seaboard processing plants seems little more reasonable.

From the individual standpoint, it is important that hogs be marketed as quickly as possible to avoid the usual fall jam. It will be a patriotic duty to submit to drastic shipping rules. Vast quantities of wheat now lie out under the open-country sky awaiting transportation to storage. For a great number of individuals there is a better answer and a more patriotic one in constructing on the farm facilities for saving this precious grain. A vast storage problem will face the soybean grower because transportation as well as terminal facilities will be inadequate for the huge crops now developing.

There are further opportunities to relieve overloaded shipping facilities. Killing the family meat supply at home is one of them. Storing in one form or another ample supplies of fruits and vegetables raised on the farm is another. The farm woodlot likewise can supply a huge tonnage of fuel to replace coal. There is the further opportunity in personal transportation to economize in school-bus operation, travel of extension people, and attendance at meetings. Every railroad car, every truck, and every barge must do double duty now.

WARTIME DEVELOPMENTS IN TEXTILES AND CLOTHING. (Journal of Home Economics, September)

The textile industry has probably moved ahead ten to fifteen years in blending, due to the exigencies of war, and soon we will see fabrics with various mixtures on the market. New terms such as noil, roving, garnett, with various types of rayon, cotton, aralac, and re-used and reprocessed wool, will be the order of the day. The fiber blends and yarn blends used in fabrics will be so varied that consumer confusion may arise unless a careful educational job is done. Retail sales clerk education as well as consumer education on performance is going to be needed more than ever. Consumers buying in the scarcity economy that has only just started will demand more information as to fabric content, fabric use, care and maintenance, and serviceability.

With fewer fabrics available and with all lines being reduced as far as the scope is concerned, the fabrics available will of necessity have to cater to more than one field. This may mean, in all probability, that women's wear in general will become slightly heavier and some men's wear fabrics slightly lighter in order that they may be interchangeable.

THE BUSY DAIRY COW. (Coastal Cattleman, September)

The blood circulation of a dairy cow is a primary factor in the milk she gives. Recent experimental work shows that 400 gallons of blood passes through the udder for every gallon of milk a cow produces. Multiply this by the day's yield and the immense amount of work a cow's heart does to fill her share of the nation's milk bottles is apparent.

QUICK FREEZING SAVES MATERIAL, TRANSPORTATION. (Refrigerating Engineering, September) Indications of the valuable savings in shipping space and materials contributed by the quick freezing industry to the war effort were given recently by the Secretary of the National Association of Frozen Food Packers. Taking as a base one million pounds of peas; or about one percent of the estimated pack of peas in the quick freezing industry this year, only 18,382 cases containing 72 twelve-ounce cartons would be required for one million pounds of quick frozen peas, as against 49,630 cases containing 24 number 2 cans for a million pounds of canned peas. Moreover, the canned peas would require 43,180 cubic feet of storage and shipping room the equivalent of a 64-car freight train. The quick frozen peas, on the other hand, would require only 27,940 cubic feet of storage and shipping room, which is the equivalent of a 31-car freight train.

Shipping weight of the canned peas would be 2,306,498 pounds, and that of the quick frozen peas would be slightly less than half of that figure. Paper board for cartons, shipping cases, cellophane and waxed paper brings the cost of materials for packaging a million pounds of quick frozen peas to \$12,745.09. Comparatively, the cost for materials in canning, labeling and boxing canned peas amounts to \$31,715.87. In addition, canning uses 269,196 pounds of vital metals for each million pounds of peas.

DRIED EGGS IN COOKING. (Journal of Home Economics, September) Dried eggs are now available in three forms: whole egg, egg white, and egg yolk. As with any other product, dried eggs can be no better than the original quality of those used for drying. BHE has found a wide variation in the palatability of the finished product. Eggs for a test were scrambled according to a standardized procedure. Since so much of our dried egg is sent to England, the judges used a scale of flavor evaluation previously developed by a British panel. Of the samples tested, 45, or 78 percent were within the limits of fresh quality, 12 were within the limits of cooking quality, and only one sample was unpleasant.

A study on "the effect of storage at various temperatures ranging from 0°F to 110°F for various lengths of time on the cooking quality and flavor of dried eggs" is in progress. Although data have not yet been summarized certain observations may be worth mentioning. At the highest storage temperatures, the quality of the eggs deteriorates quickly. A noticeable difference in the finished products is found after one week of storage. The eggs retain good quality and flavor at the lower temperatures for several months.

Until further information is available regarding methods of storage, we advise keeping dried eggs in a covered container in a cool or preferably cold place. To reconstitute dried whole egg, we use two tablespoons of egg and an equal amount of water as the equivalent of one fresh egg. However, in baked products dried egg can be satisfactorily used if added to the other dry ingredients.

WAR STIMULATES FROZEN FOODS. (Ice and Refrigeration, September) Production of all types of frozen foods will be stimulated by the war, is predicted by three California scientists. The indications, they say, point to increase freezing storage of all kinds of food, both for domestic and commercial demand, and in bulk for use by the Army and Navy. The war will bring frozen foods into camps, hospitals and military institutions in all parts of the world, and into more homes all over the country.

NEW MARKET FOR AN OLD PRODUCT. (Food Industries, September)

In eleven years, Karl Pitschner of Ohio has developed a thriving business processing pinon nuts from the forests of the southwestern states, meeting unusual problems in this comparatively new field of the edible nut industry. He undertook the problem of a sheller, the principle of which remains a trade secret. The present shelling machine produces 200 lb. of meats per hour with a breakage and loss of not more than one-half of one percent. There are four species of the nut pines found in the southwestern section of the United States. The principal species, *Pinus edulis*, commonly called the New Mexico pinus, is found in the canyons and on the slopes and foothills of the New Mexico Rockies and on the high mesas of the Arizona deserts. The nuts are gathered mostly by Mexicans and Indians. The Navajo Indians are the most skillful pickers. Several experiments have been carried toward the semi-cultivation of the New Mexico species of nut pines. In one instance, nuts were produced which were $1\frac{1}{2}$ to 3 times the size of the ordinary nut. It is Pitschner's belief that in the hands of adequate and constructive capital the pine nut industry can become one of the major divisions in the field of edible nuts. The pinon nut is far superior in flavor and usefulness to the pignolia which was formerly imported from Spain and Italy.

BUTTER FOR TROPIC WEATHER. (The Creamery Journal, September)

Lack of refrigeration on ships or in storage warehouses need not keep the dairy industry from supplying "butter" to the armed forces and civilian populations in tropical countries. Pure butteroil and skim milk powder--two dehydrated dairy products that contain all the food nutrients found in butter--could be shipped to tropical countries, held for a year or more if desired, and then made into good butter with the aid of a little cold water, according to the Bureau of Dairy Industry. Butter usually contains 80 percent fat (butteroil), about 1 percent skim milk constituents. The rest is water and salt. Dr. George E. Holm, who is in charge of the Bureau's fat-spoilage research, recently perfected a method of preparing the pure butteroil and packaging it so that it will keep almost indefinitely under extreme conditions. Skim milk powder is already produced and packaged satisfactorily by the industry.

REFRIGERATED CARGO PLANES. (Ice and Refrigeration, September)

Bonanza undoubtedly awaits the invention of refrigerated cargo planes, as the eyes of the nation are on the development of the newest phase of aviation, the flying of huge cargoes via air, and the advent of transportation of perishables by plane. Many are looking to Henry J. Kaiser to make good his promise of 70-ton flying freighters, and they are convinced that this great engineer and builder of Grand Coulee and Boulder dams can build these planes. With their development it may be but a step to "refrigerated planes" of the future, iced for transport of fresh perishables to the fighting forces and later, iced planes for peace and the fruits of victory.

ARGENTINA FACES GRAIN BAG SHORTAGE. (Foreign Commerce Weekly,

August 29) Visible stocks of bags are sufficient to store only about 60 percent of Argentina's latest grain harvest, and about 46,000,000 additional bags are urgently needed. Textile mills are endeavoring to meet the challenge by studying every possible method of producing the coarse woven cloth used for grain bags, especially by utilizing domestic fibers. The exportation of bags or of any materials used in their manufacture has been prohibited.

81
cap. 1
The

Digest

LIBRARY
REC-111B

SEP 22 1942

U. S. Department of Agriculture

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D. C., September 21, 1942

FOOD DEHYDRATION ADVANCES. Dehydrated vegetables are providing more satisfactory to the armed forces than was the case during the first World War, said Dr. W. V. Cruess, University of California, at the meeting of the American Chemical Society. "Blanching," or scalding by steam is the answer along with the other modern practices, he said. The second most important principle to observe in dehydration is drying the vegetable to a moisture content below 5 percent.

Packaging is the other great problem of dehydrated vegetables. They are subject to spoilage by oxidation, if they absorb moisture from the air as is certainly the case in the tropics for products in the open. Secondly, insects dearly love dehydrated vegetables and will eat their way through cartons, cellophane, and bags of various kinds, including laminated asphalt bags.

So about all that can be done at present in a practical way to protect them for Army use in the tropics is to pack them in metal containers or in glass. Packaging in nitrogen or carbon dioxide is advised in order to reduce the tendency of the products to oxidize. Production of drum dried vegetable purees is a recent commercial development and spray may also come into its own for powdered juices.

Most fruits are sun dried, not dehydrated. This goes for apricots, figs, peaches, raisins, prunes and pears, yet dehydration has much to commend it in comparison with sun drying.

ICE CREAM SALES. (Ice and Refrigeration, September) Ice cream sales in the U. S. and Canada for the first four months of 1942 show an increase over the same period of last year of 13.94 percent. Sales in 1941 by 869 plants were 196,952,327 gallons, according to a report by the Statistical and Accounting Bureau of the International Association of Ice Cream Manufacturers. The Agricultural Marketing Service of the U. S. Department of Agriculture, reporting for a much larger number of plants, states that 379,936,000 gallons were sold in 1941. Both these figures set a new high record for ice cream sales and preliminary figures to date indicate that 1942 sales will show a considerable increase over 1941.

BRITISH FARMERS GET OLD UNIFORMS. (Foreign Commerce Weekly, September 5) Service uniforms which have outlived their usefulness in heavy duty with the armed forces, will, after being reconditioned and dyed, and their days in the peaceful pursuits of Britain's verdant countryside. To replace work clothes worn beyond repair, a limited supply of such clothing, dyed green, will be made available to agricultural workers. These clothes, which consist of a heavy woolen blouse and trousers, are to be sold at a low price—one suit to a customer.

September 21, 1942

SPEED IN RESEARCH. (National Butter and Cheese Journal, September) It is a government scientist who now points out that there are "wastes" in methods of research as well as in the products to which research sometimes is directed. Most government research men have known about these wastes but perhaps it has not been a part of the research temperament to attend to their lessening except under an extraordinary urge; moreover, the very bureaucratic processes which surround and condition governmental undertakings tend to obscure the extents and costs of such wastes. We quote Dr. E. C. Auchter, research administrator, U. S. D. A.; "Cutting red tape and reducing ponderous procedures is one lesson government research men are learning as a result of urgent war needs. Some research procedure is necessarily slow, but a job that might ordinarily take 10 years can often be done in two or three if experts in different branches of science tackle it simultaneously instead of piecemeal. More and more of this kind of co-ordination is being accomplished. Scientists are needed to assume leadership in carrying out certain projects even when they are well ahead of popular opinion. Basic research must be pushed!"

WHAT MAKES BREAD GOOD. (Coastal Cattleman, September) Using, an ingenious laboratory method for literally taking flour apart and putting it together again, a U. S. Department of Agriculture scientist has added some additional information on the long-debated question as to what makes good bread good.

His work again emphasizes the importance of gluten as the main key to bread quality. In taking flour apart, Karl F. Finney cooperative agent of the Bureau of Plant Industry and the Kansas agricultural experiment station at Manhattan, divided it into three fractions; (1) starch, (2) gluten, and (3) a water soluble fraction. He was able to subdivide the gluten further by extracting the fat. With these chemically distinct fractions of the flour prepared in the laboratory, Finney found that it was possible to combine them again the ⁱⁿ same proportion as in the original flour and make from the "put-together" flour a loaf of bread practically identical with a loaf from the original flour.

Bakers recognize wide differences in the quality of Flour from different varieties of wheat. So, Finney's next step was to take apart three flours, A, B, and C, of distinct qualities. Juggling the combinations--for example, combining starch from Wheat B with the other elements from Wheat A--he put together synthetic flours and baked test loaves. Starch from B would substitute for starch from A without making any substantial change in the loaves. Water soluble fractions or fats could ^{be} interchanged at will. But when gluten from Flour B was added to the other elements of Flour A or Flour C, the test loaf was like the loaf from the all-B flour.

These experiments, Bureau of Plant Industry officials point out, will make possible a more correct interpretation of the probable baking value of new wheat varieties.

INDIANA NEIGHBORHOOD COUNCILS. (Farm Journal and Farmer's Wife, September) Across Indiana, Farm Bureau Co-operative Association has set up neighborhood emergency councils to work out local plans for saving transportation, to create clearing houses and "swap offers" on neighborhood hauling jobs.

September 21, 1942

MANAGING THE MEAT SUPPLY IN WARTIME. (A statement by Claude R. Wickard, Chairman, Foods Requirements Committee) The facts about meat output and meat demand are: The total supply is the largest on record. Livestock production is the greatest in history. Packers are handling and will handle more meat than ever before. For the present marketing year, the meat output of America will be over 24 billion pounds.

The total demand is also the largest on record. Our fighting forces need large quantities of our meat. Our allies need large supplies. Military and lend-lease schedules now call for about 6 billion pounds, and may go higher if ships become available. On top of that, our civilian population, with the highest incomes on record, working harder than ever before, want more meat than ever before. They would take about 21 billion pounds this year. The total demand adds up to more than the total supply, 27 billion pounds of demand; 24 billion pounds of supply. We can't take the meat away from our fighting men. Also we must keep sending our allies enough to sustain their war effort....

The Committee's conclusions on how the meat supply should be managed to assure fair distribution among consumers and among seasons: 1. Completely fair distribution can best be assured by rationing. As soon as it can be made ready, we should install a program of meat rationing. But rationing cannot be made ready in less than four months. 2. Meantime, there is need for voluntary conservation of meat. Within a few days we will begin to suggest ways in which citizens can hold their meat consumption at normal.

DUSTS FOR INSECT CONTROL. (Better Fruit, September) Fruit growers who become hard pressed for labor may find some relief in utilizing dusts to a greater extent than sprays for the control of insect pests and diseases in their orchards because of the marked saving in labor in dusting over spraying. Spraying has become the accepted method for applying insecticides and fungicides to orchard crops because it provides the best all-around protection with the least amount of material; but dusting, which requires about one-fourth as much labor as spraying, should receive increased attention this year. There is at present no complete dust program that can be recommended for the effective control of both insects and diseases, it is explained. The ideal procedure, especially in large plantings, is to use both spray and dust equipment to supplement each other, but there are many factors to be considered to do this economically and effectively.

QUICK FROZEN MEATS. (Editorial in Quick Frozen Foods, August) Quietly, without furor, certain things have been shaping up which may hasten the day when quick frozen meats will become universally accepted in this country. Still in the incipient stage (about 25 million pounds were quick frozen last year), packaged, cellophane wrapped meat cuts are rapidly becoming consumer acceptable. Reasons: 1) the war and the army's acceptance of frozen, boned meat; 2) a bill now in Washington to allow packers to take fat from carcasses at the packing plant, ship out with less weight. If passed, the next step would be complete boning. Meat packers are continually experimenting and now have fairly complete lines. These are at present distributed mostly through frozen food channels to the institutional trade. The retail butcher bogey has yet to be overcome. But to meat packers, frozen, packaged meat cuts offer enticing possibilities. Weight reduction would be tremendous. Costly branch house set-ups could be pared down, many expenses of distribution cut. And packers could do what they never could before—brand each steak, chop, and roast sold. Quick frozen meat cuts would take meat merchandising out of the cracker barrel stage,

September 21, 1942

place it on a par with other packaged goods. Main difficulty now, however, besides the retail butcher hump, is the lack of low temperature railroad cars.

GRASS FOR VICTORY. (Soil Conservation, September) First the seed. Then, the grass. Not just any seed. Not just any grass. Rather, seed of improved strains, of proved performance, of kinds speedily available in quantity. Seed for grasses and legumes fitted to do special jobs. That is one of the important mandates of Agriculture's ambitious war program. That is the challenge flung by lend-lease demands for 20,000,000 pounds--600 car-loads--of grass and legume seeds again this year. That is the assignment laid down by the Army, which must have vegetative camouflage . . . lawns for hospitals and cantonments . . . airport turf low in skid value, tough enough to survive the weight of heavy bombers. That is our obligation to weakened soils that cry for protective cover and a good needling of nitrogen. That is one essential wing of the production program, on which so largely depends the American output of milk and butter and eggs and meat.

CASTOR OIL IN RUBBER. (Science News Letter, September 5) Castor Oil may be used to ease rubber shortage. Castor Oil, popular remedy for the colic, popular with the mothers not with the babies, may also soothe the pangs of the rubber shortage. One part castor oil to one part ethyl cellulose is the composition of the new plastic to replace rubber in many of its uses. The new material has not the bounce of natural rubber, but there are many things for which rubber has been used which do not need bounce, such as washers, gaskets, gloves, galoshes, garden hose, etc. Sixty thousand pounds of rubber have been used in these ways annually, it is estimated, simply because it was cheap and plentiful. For all of them the new plastic is just as good, and in some ways better, they say.

FARMERS RETURN BAGS TO SERVICE. (Illinois Agricultural Association Record, September) Farmers have added another "make-it-last" item to the every-growing list of materials to be conserved. This time it's feed bags. Thousands of used feed bags are being returned for cleaning, fumigating and baling for reshipment to the feed mills. Focal point of the bag conservation program is a company where equipment is being operated to recondition useable bags so that they may be utilized in bringing feeds to the farm. Feed salesmen collect bags from their customers, bundle and tag them with the customer's name and check each individual lot of bags. Credit allowance is made to the customer which affords a possible saving of from \$2 to \$3 per ton on his purchase of feeds. All bags are then shipped for reconditioning in bundles of not less than 200 bags.

QUESTIONNAIRE CLAMP. (Business Week, September 12) Now business concerns have a chance to do something about the plethora of government questionnaires. The Budget Bureau, arm of the President's Executive Office, is giving them a club. After Jan. 1, if they get from any federal agency a questionnaire that doesn't bear a symbol of the Budget Bureau's approval, they will not be under any obligation to answer it. The Bureau is now combing down the 10,000 or more questionnaires, forms, etc., in use and already has life-and-death power over new ones.

LIBRARY
RECEIVED

OCT 1 1942

U. S. Department of Agriculture

The Digest

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., September 28, 1942

FRUIT BARS FOR THE ARMY. (Business Week, September 12) Dried apricots, peaches, figs, prune pulp, and date pulp in palatable "candy bar" form has long been the objective of numerous researchers in the dried fruit field. Apparently the Agricultural-Chemical Research Division of the Department of Agriculture believes it has the problem licked as a result of experiments recently completed in its Los Angeles laboratories. The bars, developed to meet specifications of the Army, contain a blend of at least three fruits with apricots or peaches as a major element of each. Apricots are preferred because of the Vitamin A content. Each bar is about three inches long and 1 1/8 in. wide and contains two ounces of dried fruits. Three bars daily (the proposed Army combat ration) supplies the equivalent of 1 1/4 lb. of fresh fruit.

Only first-quality fruit is used for the new bars although the original fruit naturally need not be top-grade in size. This means that, if any large amounts of the food bars are ordered for use of the Allied governments, growers will have a new outlet for the portion of their first-quality fruits that could meet top-grade marketing specifications in everything except size. Civilian commercial possibilities of the dried fruit bar aren't being entirely overlooked by the researchers who insist they have developed a palatable product which may compete with the more familiar bars on the candy counters.

COFFEE SITUATION. (Business Week, September 5) New fuel has been added to the red hot battle over rationing of coffee. Since Brazil now is in the war as a full-fledged ally, coffee marketers contend that more ships of necessity will be carrying war materials to the big South American republic. Those ships won't come back empty, might just as well pick up added supplies of coffee. And, if imports of the bean pick up as these authorities anticipate, there would be no need for rationing.

The War Production Board clearly had no such idea when it cut the trade's quotas from 75% to 65%, effective Sept. 1. Moreover, the boys in Washington have felt for some time that coffee was very close to the top of the list of items in need of rationing. The Office of Price Administration seems to feel that tea isn't an essential to the average American and that stocks may be allowed to run out; not so with coffee, however.

PIG-HOG BRISTLES LIMITED. (Victory, September 15) All brushes made in the United States except for war contracts and local health regulations, must contain at least 45 percent of material other than pig and hog bristles, the WPB has ruled. The action, reflects the growing scarcity of pig and hog bristles caused by the cessation of imports from China and the Far East.

September 28, 1942

SHOE SUPPLY AMPLE. (Hide and Leather and Shoes, September 5) There is no cause for any immediate alarm in regard to leather and shoe supplies. Analysis of available facts indicates that supplies are sufficient to fill all needs through 1943. Emphasis is placed on the word "needs" as differing from that of "wants." If the supply situation becomes very tight, definite action can promptly be taken to guard supplies to assure ample quantities for actual requirements. Wartime conditions make it impossible to estimate for any period beyond 1943. Much depends upon the progress of the war and actual results of the many battles being fought. These uncertainties cloud the situation too much for reliable forecasts. This is a usual situation during abnormal periods and should not be misconstrued as skepticism of the future.

CHEMISTS HEAR PUPPIES REVEAL SECRET OF YOUTH. (N. Y. Herald-Tribune) A secret of youth, found by feeding puppies on human food, was reported to the American Chemical Society by three Cornell University nutritionists.

At the age of three months the dogs were placed on diets exclusively of human foods. All the vitamins and organic necessities known to be good for man, were kept in the meals but the calories were cut way down. That is, the dogs received semi-starvation amounts of food, which would put on no fat. The pups were skin and bones but they lived through a Cornell campus winter without any heat and were never sick. They were more active than other puppies receiving all the food they wanted.

They resisted an epidemic of bronchial infection which swept through the kennel during the winter and attacked other dogs. They were immunized against distemper without any unfavorable reactions. Afterward, when allowed all they wanted to eat, the puppies ate twice as much as normal dogs for a whole month. Their final body size when adult was three-fourths of normal. But, and here is the secret, at a year and a half, they still behave like puppies. They like to romp and they do a lot of laughing (dog style). The studies are believed to have a human lesson showing that in all probability a man can keep in excellent health for long periods on short rations, provided the vitamin and other essentials are adequate.

PUTTING VEGETABLES TO SLEEP. (Coastal Cattleman, September) Scientists at Cornell University are working on ways to "put vegetables to sleep." Seems they already do that with apples--since the apple is a living thing, it breathes or takes in oxygen, and respire or gives off carbon dioxide. By controlling the proportions of oxygen and carbon dioxide they "put the apples to sleep" so that the fruit will keep a year or more.

With vegetables, it's more of a problem, because different vegetables have different breathing rates. But already the Cornell scientists have been able to double the storage period of most vegetables. There is very little water loss and the vegetables remain crisp and turgid.

FROZEN EGGS IN CELLOPHANE. (Food Industries, September) Frozen eggs are being packed in cellophane as a contribution to the metal conservation program. Ordinarily, the eggs, after removal from the shell, are poured into tin cans, holding 30 lb., then frozen and stored. But a score or more of the ^{large} egg packers are now putting the eggs into a leak-proof cellophane bag inside a special rectangular shaped fiberboard box. The freezing time is said to be comparable with that for the metal containers.

September 28, 1942

THE U.S. FARMER IS DEPENDABLE. (Journal of the American Veterinary Medical Association, September) If not swayed by selfish leaders, the American farmer in this fight for country, is as stable as the pioneers who carried the flint-lock musket on the plow handles. They look forward toward furnishing the abundant output of food, feed and clothing material which represents one of the main implements of modern warfare. In all wars, they have suffered hardships and made sacrifices, and without exception the post-war adjustments have been nothing less than cruel to them. The fruits of their war efforts have been crops of mortgage foreclosures, low prices, and a hopeless outlook which drove their children to the cities. While they, too, have property to protect and dignity to preserve, patriotism per se has never been lacking among the men and women of the farm—no more in 1942 than in the War of Independence. Their burdens are heavy, their labors hard, and their income relatively small. The country is again counting on them now and it will not count in vain.

OPERATING COSTS OF TRACTORS. (Agricultural Leaders' Digest, September) The average cost an hour for operating tractors in central Illinois was 55 cents for two-plow tractors, 66 cents for three-plow tractors, 77 cents for crawler-type tractors and 97 cents for four-plow tractors on the basis of records of the University of Illinois College of Agriculture. There was a wide range of cost in each size group because of variations in the hours the tractors were used a year, horsepower rating and the age of the tractor. The cost an hour for two-plow tractors averaged about 11 cents less than for three-plow tractors, and the difference was greater for tractors used less than 400 hours a year than for tractors used more than 800 hours a year. The cost an hour for both two-plow and three-plow tractors fell rapidly as the number of hours used a year increased up to 700 hours. From 700 to 1,000 hours, there was only a slight decline in hourly cost for additional hours of use.

NEW PRODUCT RETARDS MOLD DEVELOPMENT. (The Creamery Journal, September) Because of the great expansion in volume of cheese manufactured during the past year, with keeping quality being of extreme importance, Du Pont chemists have developed a product which is known as "Mycoban," for commercial use as a mold retardant. Known to chemists as propionates, the product can not only be used for treating cheese but may also be used to retard mold development in butter, bread and other food products subject to mold, without effect on texture, taste or other qualities. It is said that by the use of the mold preventative agent the mold-free life of cheese and butter may be increased from 200 to 300 percent.

CIGAR WRAPPERS SCARCE. (Pathfinder, August 29) The Island of Sumatra may be raising tobacco this year, under new Jap bosses, but there is little chance for her main regular customer, Uncle Sam, to get any of it. Of the 1941 crop 2,275,000 pounds were shipped to the United States, at an average of \$2.09 a pound. Sumatra tobacco, neutral in taste, has long been our main dependence for cigar wrappers.

Three kinds of tobacco go into the making of cigars—the filler, binder and wrapper. Filler tobacco comes mainly from Pennsylvania and Ohio, and last year averaged 12.4 cents a pound, farm weight. We have been getting some high-grade wrapper from Havana, and a larger quantity of medium grade from Puerto Rico, but our main reliance now is on the wrapper tobacco raised in four states—Connecticut, Massachusetts, Georgia and Florida. This year

we are using last year's Sumatra crop, but next year practically all of our wrappers must come from the four wrapper states, and the tobacco growers there must soon decide whether they will or can expand to meet the increased demand.

ALLOCATION OF CIVILIAN SUPPLIES. (Journal of Home Economics, September) In the WPB Division of Civilian Supply, whose particular interest is in consumer goods, the most fundamental distinction which we have made is that between durable and nondurable goods. Cessation of output has an utterly different meaning for each type. Nondurable goods are available to us only if there is a continuing flow of them; the use of durables on the other hand, depends upon the general stock which has been accumulated over a period of time, and which can be used up only over an equally extensive period.

If we were to allot no more steel for tin cans, than in a few weeks or months, after our present supply was used up, there would be no more canned food. But our orders stopping or limiting the output of refrigerators, washing machines, stoves, rugs, electrical appliances have certainly not meant that these items have vanished from our homes. For example, the average life of an electric refrigerator is about 15 years. In other words, the war will have to last that long before the great bulk of our refrigerators is gone. Even this is too pessimistic a view, for the policy of the War Production Board has been, and still is, that maintenance and repair parts shall be supplied for all durable goods now in operation. With these available, most of our durable goods can be kept operating almost indefinitely.

WOMEN IN DAIRY PLANTS. (Dairy Record, September 9) Dairy plant operators have become so accustomed to a plethora of labor that it is difficult for many of them to realize that there can be a shortage. Many of them have already been confronted with the difficulty of securing men, and the trouble thus far encountered is mild compared with what it is going to be as the demands of the armed forces dig deeper and deeper into the supply. Dairy plants will do well to emulate the example of industrial plants and resort to the employment of girls for many tasks heretofore done by men. This advice is good for the small country creamery as well as for the large city ice cream factory or milk plant. It may mean the shifting of many duties, but even the small country plant can husband the resources of its masculine labor by proper utilization of women. Experience has proven that women make good testers and that some of them are no slouches when it comes to grading cream. Most large plants use them exclusively for printing butter and packaging ice cream.

VITAMINS IN COTTONSEED OIL. (N.Y. Herald-Tribune) If food prices get too high, buy some cottonseed flour (present price 5 cents a pound). In a pinch add flour of soya beans and of peanuts. All three are an untapped cheap and rich source of vitamins and proteins. The report was made by two doctors of the Columbia School of Medicine.

"In any food stringency," they stated, "these inexpensive flours will make it possible to save on meat and the less available fresh leafy vegetables. A certain proportion of them skillfully woven into our dietary regime would seem preferable to the incomplete and haphazard dosing with Vitamin B pills." Cotton seed flour, they pointed out, has been accepted for years as a wholesome human food by the council on foods of the American Medical Association.